

## **REMARKS**

### **Summary of the Outstanding Office Action**

Claim 7 has been indicated as containing allowable subject matter, but has been objected to for depending from a rejected base claim.

Claims 1-6 and 8-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Chase, et al. (U.S. Patent No. 6,456,397, hereinafter referred to merely as Chase) in view of Gelbart (U.S. Patent No. 6,158,345).

The Examiner has objected to the drawings on the "Office Action Summary" without any comment thereon in the body of the paper. Presumably, the Examiner objects to their informal appearance.

### **Drawings**

Replacement drawings are submitted herewith to address the Examiner's objection. Acceptance of the replacement drawings is earnestly solicited, and an indication of the same is hereby requested.

### **Summary of the Claim Amendments**

Claim 7 has been amended to place it in independent format.

### **Summary of the References**

**Chase** is directed to a method and apparatus for digital imaging with reduced periodic artifacts using stochastic gradients. Chase focuses on using overlapping scan lines to create printing zones such that each zone is printed with contributions from a plurality of individual printing devices comprising a print head., i.e., lasers. Accordingly, the artifacts that may be attributed to any one of the lasers is blended out within the zones so as to be less apparent. For example, an artifact that would be otherwise periodic in nature due to the same misaligned laser creating the same error for each individual scan lined created thereby, in accordance with the teaching of Chase, becomes obscured insomuch as the misaligned laser is merely contributing some portion of printing to a blended zone incorporating print from a plurality of different lasers. Notably, Chase does not teach any method or device by

which any actual characteristic of the printing devices (i.e., the lasers) or the lens assemblies are measured or obtained. In fact, to Chase the actual characteristics of the lasers or lens assemblies is irrelevant inasmuch as Chase is not trying to correct the actual errors or artifacts attributable thereto. Rather, Chase attempts to blend them out so as to make them less noticeable.

**Gelbart** is directed to a method of compensating image details for flexographic printing plates. Gelbart focuses on an image correction method that compensates for uneven stretching of flexographic plate when it is wrapped around a cylindrical drum, i.e., due to variations in the effective thickness of the plate. Importantly, nowhere does Gelbart address obtaining or measuring any characteristic associated with any lens array, nor does Gelbart address any correction of any artifact associated with a lens array.

**The Present Claims Distinguish  
Patentably over the Applied Reference(s)**

Claim 7 has been placed in independent format and already indicated as containing allowable subject matter. Accordingly, it is respectfully requested that the objection thereto be withdrawn.

The Examiner's rejection of claims 1-6 and 8-18 is hereby traversed.

Claim 1 calls for "obtaining a characterization at selected locations across the array lens" and "from the characterization, determining compensation parameters for a plurality of locations across the array lens." Notably, neither Chase nor Gelbart, neither alone nor in combination, teach the foregoing. As pointed out Chase does not teach obtaining characterizations at selected locations across the array lens. The Office Action seem to suggest that this is somehow disclosed, citing FIG.3, column 6, lines 57 through column 7, line 9 and/or lines 54-63. While indeed a plurality of lens assemblies **96** are shown on a writing array **150**, nowhere can Applicant find where there is even the slightest suggestion of obtaining any characterization of any of the lens assemblies or at selected locations across the array of lens. Further, "recognizing the different relative positions of the lens assemblies with respect to substrate **55**" merely means that the controller **80** knows the relative positions of the lens assemblies with respect to the substrate **55**. This clearly does not equate with

the claimed obtaining of a characterization at selected locations across the array lens.

Chase also fails to teach determining compensation parameters for a plurality of locations across the array lens from the characterization. The Office Action appears to be inconsistent on this issue. Seaming it is conceded that Chase does fail to disclose "compensation parameter" but somehow it is alleged that Chase does disclose "from the characterization determining plurality of locations across the array lens," citing column 5, lines 5-20. While the reasoning in the Office Action is at best unclear, Applicants can find nowhere in the cited text where the claimed feature is expressly taught or fairly suggested. Rather, the cited text merely describes an operation whereby an array of imaging devices is scanned across a recording medium. In short, Chase fails to expressly disclose or fairly suggest determining any compensation factors, let alone determining them from the characterization. In fact, inasmuch as Chase fails to obtain the characterization in the first place, clearly no compensation factors can be determined therefrom.

Gelbart also fails to disclose the foregoing. Again, as already pointed out, Gelbart discloses nothing about any array lens, characterization thereof or compensation factors derived from the characterization. In support of the rejection of claim 1, the Office Action cites to column 4, lines 10-23 of Gelbart. However, while Gelbart does teach some form of compensation that requires knowledge of parameters  $t_1$  and  $t_2$ , this does not equate to what is being claimed. First, Gelbart's compensation is for uneven stretching of flexographic plates. The compensation being applied by Gelbart has no rational relationship array lenses. Second, the parameters  $t_1$  and  $t_2$  represent the distances between a neutral plane 13 of the plate and an image side of the plate 17 and a substrate surface 16, respectively. That is to say,  $t_1$  and  $t_2$  are not associated with or determined from a characterization of an array lens as are the claimed compensation parameters.

Neither Chase nor Gelbart nor the combination of both disclose all the features of claim 1. Accordingly, it is submitted that claim 1 and claims 2-6 that depend therefrom distinguish patentably over the references.

Claim 8 calls for, among other elements, "a memory which stores a plurality of parameters to compensate for the array lens induced artifacts." Neither Chase nor Gelbart nor their combination disclose such a memory which stores parameters to

compensate for array lens induced artifacts. In fact, neither reference even mentions such artifacts let alone store in a memory parameters that compensate for the same. Regarding claim 8, the Office Action merely cites to column 5, lines 5-20 of Chase. No memory of any kind is mentioned in the cited text. Both Chase and Gelbart fail to disclose any parameters that compensate for array lens induced artifacts. Accordingly, claim 8 and claims 9-12 that depend therefrom distinguish patentably over the references.

Claim 13 calls for "determining an error attributable to at least one selected coordinate on an array lens; scanning a physical image using the array lens with the determined error, resulting in an image representation including artifacts; and compensating for the determined error in the scanned physical image, resulting in a post-compensated image representation." Additionally, claim 16 calls for "determining an error attributable to at least one selected coordinate on an array lens; receiving a desired image representation; compensating for the determined error in the image representation resulting in a pre-compensated image representation; and outputting the pre-compensated image representation on a physical media." Neither Chase nor Gelbart nor their combination teach determining an error attributable to at least one coordinate on an array lens, nor do they teach compensating for that determined error. Again, Chase does not determine any error or compensate for it as such. Rather, Chase merely uses blended printing zones to randomly spread the contribution from an errant printing device so as to make any artifacts associated with the individual device less perceivable. As for Gelbart, a form of compensation is contemplated, i.e., to address uneven stretching a flexgraphic plate. However, the compensation does not equate to the claimed compensation that addresses determined error attributable to at least one selected coordinate on an array lens. Therefore, claims 13 and 16 and claims 14, 15, 17 and 18 that depend therefrom distinguish patentably over the references.

### **CONCLUSION**

For at least the reasons set forth above, it is submitted that the remaining claims as they now stand distinguish patentably over the art. Accordingly, an early indication of allowance is requested.

**Telephone Interview**

In the interests of advancing this application to issue and compact prosecution, the Applicant invites the Examiner to telephone the undersigned for an interview prior to substantive action in response to this paper should the Examiner feel that such an interview would be productive.

Respectfully submitted,

FAY, SHARPE, FAGAN,  
MINNICH & McKEE, LLP

A handwritten signature in black ink, appearing to read "John P. Cornely", is written over a horizontal line.

John P. Cornely (Reg. No. 41,687)  
1100 Superior Avenue  
Seventh Floor  
Cleveland, Ohio 44114-2518  
(216) 861-5582

n:\xerz\200341\ew0803a.doc